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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,303	06/16/2005	Richard Corbett	09728.0330USWO	2664
23552 7590 10/30/2007 MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER KING, BRADLEY T	
			ART UNIT 3683	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,303

Applicant(s)

CORBETT ET AL.

Examiner

Bradley T. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirai et al (US# 6138801) in view of Rieth et al (US# 6405836).

Shirai et al discloses an actuator including; an electric motor with a stator 110 and a rotor (48, 112, 178), a screw mechanism, including a rotatable nut 54 and a central screw 56 translatable along a given axis, a planetary gear reduction system 174, disposed between the rotor 112 and the screw mechanism, for driving this mechanism, wherein the rotor (48, 112, 178) carries a plurality of satellite gears 46 of the reduction system. Note figure 7. Shirai et al lacks the disclosure of a toothed rotor. Rieth et al discloses a similar braking device and further teaches the use of a toothed rotor portion 37 to allow for a locking device and function or a position sensor for indicating rotor position. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a toothed rotor portion in the device of Shirai et al as taught by Rieth et al to allow for a compact locking structure and/or position sensing structure, thereby allowing locking of the device to reduce energy expenditure or allow position sensing to provide accurate control of braking clearances and forces. Shirai et

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al and Rieth et al further lack a metallic toothed portion. The examiner takes official notice that metallic material is well known in the art and standard practice for toothed wheels of sensor elements. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select metallic material for the toothed rim of Shirai et al and Rieth et al as known in the art as a suitable and economic material for providing proper signals in conjunction with the sensors taught by Rieth.

Regarding claim 10, Rieth further lacks the use of satellites having two toothed portions. Satellite gears having two toothed portions are well known in the art and further taught by Shirai et al. It further would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize satellites such as taught by Shirai et al in the device of Rieth as an obvious design alternative and would yield the predictable results of achieving a different gear ratio in the device.

Response to Arguments

Applicant's arguments filed 7/16/2007 have been fully considered but they are not persuasive.

Regarding the modification of Shirai et al in view of Shirai et al, it is maintained that it would have been obvious to one of ordinary skill in the art to utilize the integrated sensing or locking structure taught by Rieth et al in the device of Shirai et al to allow for a compact locking structure and/or position sensing structure, and would yield the predictable results of allowing locking of the device to reduce energy expenditure or allow position sensing to provide accurate control of braking clearances and forces. It is

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further maintained that including a toothed portion would not require substantial modification of the rotor of Rieth, particularly if the toothed portion is only used for sensing.

Regarding the statement of official notice, it is noted that applicant has not traversed the statement. The statement is therefore taken as admitted prior art. See MPEP 2144.03(C).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Koth et al.


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Bradley T King
Primary Examiner
Art Unit 3683

10/28/07

BTK